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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/757,857

01/14/2004

Jerome Marie Joseph Declerck

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KALOW & SPRINGUT LLP  
488 MADISON AVENUE  
19TH FLOOR  
NEW YORK, NY 10022

EXAMINER

LE, LINH GIANG

ART UNIT

PAPER NUMBER

3626

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/757,857	<b>Applicant(s)</b> DECLERCK ET AL.	
	<b>Examiner</b> MICHELLE LE	<b>Art Unit</b> 3626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 March 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>030708</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Notice to Applicant*

1. This communication is in response to Amendment filed 07 March 2008.

Claim 1 has been amended. Claims 1-13 remain pending.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meaney (2002/0068865) in view of Raghavan (6,464,662).

4. As per claim 1, Meaney teaches a system for controlling a medical data acquisition process, comprising a data acquisition apparatus controller for controlling data acquisition apparatus to acquire medical data from a subject;

an agent administrator controller for controlling a device to administer an agent to the subject (Meaney; Fig. 1 and pg. 4, paras. 45-48);

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Meaney does not expressly teach:

a medical data processor for receiving the medical data from the data acquisition apparatus and processing it to analyze in real time the behavior of the agent in the subject;

a protocol controller for controlling the data acquisition apparatus controller and agent administration controller to adjust parameters in real time of the data acquisition process in response to the analyzed real time behavior of the agent in the subject from the medical data processor.

However these features are well known in the art as taught by Raghavan. In particular, Raghavan teaches a computer capable of generating plans adjusted to users goals (Raghavan; Col. 13, lines 50-65). The computer monitors the injection in real time and when deviation occurs the computer can autonomously or upon user approval implements revisions while the injection is in progress. Thus Raghavan teaches a system in which the behavior of an agent is monitored in real time and the ability to adjust the parameters in response to the real time analysis. It would have been obvious to add these features with Meaney with the motivation of replacing visual or manual inspection by allowing the computer to enter part of the control loop and assist with the optimal planning of the injection schedule (Raghavan; Col. 12, lines 50-55).

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5. As per claim 2, Meaney teaches wherein the device to administer an agent to the subject is an automatic drug delivery device (Meaney; pg. 9, para. 102).
6. As per claim 3, Meaney teaches the agent is a pharmaceutical agent (Meaney; pg. 9, para. 102).
7. As per claim 4, Meaney teaches a system wherein the agent is an imaging agent, the data acquisition apparatus is an imaging apparatus and the medical data processor is an image processor (Meaney; Fig.1 and pg. 4, paras. 45-48).
8. As per claim 5, Meaney teaches a system according to claim 4 wherein the imaging agent is a contrast agent for selectively enhancing the contrast of at least one region of the subject (Meaney; pg. 9, para. 106).
9. As per claim 6, Meaney teaches wherein the data acquisition apparatus is a spectroscopy apparatus and the medical data processor is a spectral data processor for processing data acquired by the spectroscopy apparatus (Meaney; Fig. 1 and pg. 9, para 102).
10. As per claim 7, Meaney wherein the protocol controller controls the relative timing of data acquisition and agent administration, via the data acquisition apparatus controller and the agent administration controller

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respectively, in response to processed medical data results from the medical data processor (Meaney; pg. 10, para 112).

11. As per claim 8, Meaney teaches wherein the protocol controller controls the agent administration controller to control the amount of agent administered to the subject in response to processed medical data results from the medical data processor (Meaney; pg. 10, para. 112).

12. As per claim 9, Meaney teaches wherein the protocol controller controls the agent administration controller to control the type of agent administered to the subject in response to processed medical data results from the medical data processor (Meaney; pg. 10, para. 112).

13. Claims 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meaney (2002/0068865) in view of Raghavan (6,464,662) in further view of Prince (6,230,041).

14. As per claims 10 and 11, Meaney does not expressly teach:  
wherein the protocol controller controls the data acquisition apparatus controller to control the mode of data acquisition to acquire data in at least two different modes in response to processed medical data results from the medical data processor.

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wherein the protocol controller is responsive to additional data acquired from the subject independently of the medical data acquisition apparatus.

However these features are well known in the art as taught by Prince. In particular, Prince teaches the period of infusion of magnetic resonance contrast agent occurring during the time which image data is being collected (Prince; Col. 7, lines 60-67). It would have been obvious to add these features to the Meaney teachings with the motivation of providing essential and accurate anatomic information (Prince; Col. 2, lines 64-68).

15. As per claims 12 and 13, Meaney does not expressly teach: the medical data is acquired in vivo from a human, animal or plant as said subject or in vitro. However these features are well known in the art as taught by Prince. In particular, Prince teaches an agent administered to a human or animal via intravenous infusion (Prince; Col. 7, lines 60-67) It would have been obvious to add these features to the Meaney teachings with the motivation of providing essential and accurate anatomic information (Prince; Col. 2, lines 64-68).

### ***Response to Arguments***

16. Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michelle Linh-Giang Le whose telephone number is 571-272-8207. The examiner can normally be reached on 8 AM - 5PM, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Luke Gilligan can be reached on 571-272-3600. The fax



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phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michelle Linh-Giang Le/  
Examiner, Art Unit 3626  
LLe

/Robert Morgan/  
Primary Examiner, Art Unit 3626